The City of Whittlesea is a growth area for industrial development in Metropolitan Melbourne. The city contains older established industrial area and new industrial estates.

Given the significant impact of industrial development on the appearance and landscape character of the city, Council is committed to achieving well designed, quality industrial developments. The municipality’s location on the northern fringe of Melbourne inspires a vision for a unique sense of place that carefully integrates development and the environment. Well landscaped employment areas benefit workers and create better investment opportunities.

These Landscape Guidelines have been prepared to assist applicants in the preparation of Landscape Plans that are required as part of the planning application process for Industrial Developments.

By preparing and implementing a quality Landscape Plan, applicants will enhance the amenity value of the development and maintain and enhance the landscape character of the municipality.
Council has a number of requirements for planning permit applications relating to industrial developments. A list of requirements is provided in the City of Whittlesea Industrial Development Policy available from Council’s Planning Department.

Planning for a development should take account of site location, existing physical conditions and landscape character, and the planning and regulatory requirements that affect the site. Landscape factors that should be considered at the time of siting and designing the buildings are listed below:

• Existing trees and other significant vegetation on the subject site. Note the location, height, species and tree protection zone of all canopy trees. The provision of this information is important, as the removal of any trees may require a planning permit

• Soil type

• Site microclimate, including aspect (sunny and shady areas) or areas overshadowed by large trees or neighbouring buildings, any damp areas, direction of prevailing winds and breezes

• Desirable views to and from the site that should be retained and undesirable views that should be screened

• Street trees and their location
Council may require that a Landscape Plan accompany the planning application or request the preparation of a detailed Landscape Plan as a condition of permit.

The aim of the Landscape Plan is to achieve a high quality landscape that:

- Retains and protects existing canopy trees, particularly trees of environmental significance
- Improves the amenity and function of the development
- Presents a densely landscaped appearance to main roads and adjoining land uses (e.g., residential edges)
- Considers mass planting of a few well selected plant species for a bold visual effect
- Requires minimal water and is affordable to maintain in the long term
- Provides shade in the middle of the day in frequently used outdoor areas

Checklist - Landscape Plan

The following checklist will help ensure that the submitted Landscape Plan provides all the information required to assess the landscape treatment aspects of the planning application. The Landscape Plan should address each of the Landscape Design Principles contained in this brochure.

- Street name and title boundaries
- North point, scale and scale bar
- Legend
- Car park and road layout
- Location of rubbish bins and loading docks
- Proposed buildings/garages, roof areas and awnings

- Fencing layout, height and style and the location of all gates and letter boxes
- Services-underground and overhead
- Proposed watering system (taps/sprinkler/automated drip irrigation)
- Extent of any cut/fill, embankments and retaining walls
- Direction of flood flow and site levels. Site levels to include finished floor levels, top and bottom of embankments, retaining walls and outdoor structures
- Pedestrian access points and pedestrian pathways within the site
- Sign location
- Existing vegetation to be removed and retained
- Plant Schedule listing proposed plants by their botanical names and common names. Also include: plant quantities, pot sizes, and size of plants at maturity (height x width)
- Clear graphics and call outs indicating locations of proposed plants that relate to the Plant Schedule. Identify plants with call outs comprising the initials of their botanical name and quantity (i.e., 4 Acacia implexa = Ai [4])
- Proposed grassed areas/mounds/mulched garden beds and garden edges
- Proposed paved areas and paving material proposed. (These will include driveways, parking bays and paths)
- Proposed shade provision (by appropriate selection and siting of broad canopy trees)
- Landscape construction details for tree and shrubs planting, paving, edging treatments, lawns etc.
- Site preparation specifications (i.e., weed control, soil amelioration etc.)
- Maintenance specifications for 24 months establishment maintenance
- Surrounding area (i.e., treatment of nature strip)

Submit: 3 copies of the Landscape Plan drawn at a scale of 1:100.
The achievement of a high quality industrial environment requires appropriate landscape treatment. Industrial developments are required to incorporate the following design principles in the Landscape Plan. These landscape design principles should be read together with The City of Whittlesea's Industrial Development Policy requirements for landscaping and will guide you towards developing a landscape that is:

- Visually appealing to prospective buyers/tenants
- In keeping with the design of the proposed buildings
- Complementary to the streetscape and industrial area character
- Respectful of environmental values. This includes conservation of indigenous landscape character and retention of trees as habitat for wildlife
- Self-sustaining and low maintenance
- Screening of plant and equipment and rear service areas
- Screening of buildings from visually significant road corridors/arterial roads and freeways

### Retain Existing Trees

The retention of existing trees is one of the most significant landscape issues in planning a development. Existing trees will contribute instant visual impact to a new development.

Existing trees nominated for retention should be incorporated into the design of the development at the early planning and design stages including trees on neighbouring land and within nature strips. This requires siting the buildings and other built components such as car parks and fences around existing trees to minimise disturbance to tree roots.

Council has a River Red Gum Protection Policy to protect and integrate existing River Red Gums into proposed developments. This policy must be consulted if River Red Gums are present either on or in close vicinity to the property. For trees not covered by Council's River Red Gum Policy, AS 4970-2009 Protection of Trees on Development Sites should be referenced and used.

**Techniques:**

- Mature River Red Gums require retention in public open space or extended road reserves. In exceptional circumstances Council may permit their retention in a private/ body corporate context where Council can be satisfied of its security over the longer term and exclusion of activity within the tree protection zone
- During construction, protect trunk, branches, and tree protection zone of existing trees by erecting temporary fencing around the edge of the tree protection zone, and avoid storing materials and equipment over the tree protection zone. Street trees affected by the design should be similarly protected
- Incorporate existing trees in grassed areas or mulched garden beds. Retain existing soil level within the tree protection zone and avoid filling or excavating the soil levels. Also avoid trenching in the vicinity of tree roots
- Where paving is placed within a tree protection zone, place paving above natural surface level (i.e. not dig construction) so as not to disturb roots. Use a free draining porous paving material to allow oxygen and water to permeate through to tree roots
- Consider canopy growth and spread requirements for younger trees to be retained
Landscape Front Setbacks to Soften the Visual Impact of Buildings and to Enhance the Streetscape

The landscape treatment of the front setback will impact upon the appearance of the overall development and the street. The first impression of the business will be formed at the property’s entrance. A suitably landscaped frontage will tone down the visual mass of the building while retaining clear views to signs and access points. It will also help to integrate the development with the existing streetscape.

Techniques:
- Use the front setback to plant evergreen canopy trees. Select trees that are fast growing, will reach over 5m height, and develop large open crowns when mature
- Place canopy trees on mounded grass areas or in mulched low shrub beds. This will achieve partial screening of the building while retaining sight lines
- Incorporate mounds to add visual interest to a flat site and to screen car parks/service areas
- Mass plant a few well selected species for a striking visual effect
- Select semi-advanced canopy trees with a minimum 300mm pot diameter. The selection of quality tree stock may be guided by Australian Standard AS 2303:2015 Tree stock for landscape use
- Select plant species suited to the soil conditions and microclimate of the site

- Use plants that typify and perform well in the area to reinforce local landscape character. In areas of environmental significance, the planting scheme should include species indigenous to the area. (refer to the back page ‘Information and Contacts’ for assistance)
- Avoid dense masses of large shrubs along the entire frontage that screen all views to the property. Visual connection between the street and the development is desirable
- Provide a logical pedestrian connection between the streetscape and building entrance

Landscape Car Parking Areas

All car parking areas should be landscaped with suitable species selected to provide both shade to parked vehicles and subtle screening of vehicles from adjacent roads.

Techniques:
- Select canopy trees, low shrubs and ground covers for ‘garden bays’ within car parks. Garden bays should be placed at regular intervals of every 8 continuous car parking spaces. Each ‘garden bay’ shall be the size of 1 car parking bay
- All ‘garden bays’ within car parks should have an edge treatment to protect plants from vehicle overhang. Suitable edge treatments include concrete kerb that is 150mm x 150mm above finished pavement level, or 600mm high vehicle barriers, or 900mm high bollards
- Screening with evergreen shrubs up to 3m high may be necessary along the perimeter of the car park where the car park is visible from the front boundary
Minimise the Visual Impact of Fencing

Fencing is often an integral part of industrial development in delineating areas and boundaries, and for security purposes. Fencing location, style and height should be integrated with the building form, be unobtrusive, and should relate to the character of the streetscape.

Techniques:
• High fencing should be located at or behind the line of the building, and the building should be designed to become part of the security solution
• Fencing along front boundaries is generally discouraged, however any solid fence should be a maximum 1.2m in height
• Where front boundary security fencing is unavoidable, the fencing style should be transparent and unobtrusive. In this case, black steel picket fencing is acceptable

Minimise External Paved Area

Minimising paved areas will visually soften the appearance of the site and increase on-site infiltration of stormwater.

Techniques:
• Maximise garden beds and lawn surfaces. For low access areas use stepping stones through garden beds
• Use porous materials for paving pedestrian areas. For example:
  Gravel or granitic sand on crushed rock base
  Unit pavers laid on a sand and crushed rock base
• Use impervious paving such as in situ concrete only for vehicular access areas

Screen Service Areas

Service areas can detract from the visual amenity and corporate image of an industrial development. Service areas should be sited away from the front boundary where possible and should be screened from view.

Techniques:
• Locate service areas to the rear or side sections of the property
• Screen service areas with fences and evergreen shrubs/vigorous climbers

Create Communal Open Spaces for Staff Recreation and Amenity

Communal open space should be designed to cater for staff recreation and informal social interaction. If suitably designed, these outdoor recreation areas will be gathering points for staff providing a source of pride and subsequent value-added benefits to the organisation.

Techniques:
• Locate communal open space close to indoor dining areas. This will encourage greater use of the outdoors during lunch breaks
• Communal open space can be designed as a series of courtyards that address a range of needs from social interaction to quiet contemplation. Select and locate plant species to provide comfortable micro-environments for these spaces

For example:
Provide shade in summer and allow light in winter by locating deciduous trees and shrubs on the north side of a courtyard
Buffer the effects of prevailing winds by locating trees and shrubs on the north and west sides of a courtyard
Plant for seasonal colour and interest
• Provide outdoor seating and an outdoor BBQ area with overhead weather protection within landscaped surrounds
• Outdoor areas for staff should have shade provision
• Use paving materials suited to the scale of courtyard spaces. For example:
  Granitic sand, lilydale toppings, or unit pavers laid on a sand and crushed rock base

Landscape Design Principles (continued)
Achieve Effective Planting that is Low Maintenance

The following techniques will encourage effective plant establishment and minimise maintenance demands in the long term.

Techniques:

- Prepare the soil in areas to be planted by:
  - Removing all weeds in proposed garden beds and lawn areas
  - Deep ripping and treating clay soils with gypsum to enhance drainage and root penetration. Deep ripping should be undertaken with caution in proximity to underground services
- Plant long lived, drought tolerant plants that are low maintenance. High maintenance planting such as annual borders can be placed in high exposure and communal staff areas for maximum appreciation
- Place all shrub and groundcover plants in garden beds with a containing edge treatment such as a timber, brick or concrete edge
- Apply mulch to all garden beds to reduce weed growth and conserve soil moisture. Examples of mulch include wood chips, pine bark and jute mat. To effectively control weed growth, a loose mulch such as wood chips should be spread to 75mm depth
- Install an automated drip irrigation system to canopy trees and mulched garden beds
- Control weed growth during the plant establishment period
- Provide a maintenance period of 2 years to establish the landscape
- Plant shrubs and groundcover at the appropriate density to ensure complete coverage of the area when planting is mature. Use the guide below:

Spacing Guide for Shrubs & Groundcovers

Tall shrubs
2-5m height
Space 1 plant every 2 metres

Medium Shrubs
1-2m height
Space 1 plant every 1 metre

Small shrubs and Groundcover
Under 1m height
Space 1 plant every ½ metres
Council will levy a bond, as a condition of the planning permit, prior to works commencing to ensure that the landscape works are undertaken and maintained as per the approved Landscape Plan.

The developer should book a final inspection by arranging a time with a council officer from the Planning Department. The final landscape shall be assessed for its conformity to the Landscape Plan.

Any areas or items found to be unsatisfactory or inconsistent with the Landscape Plan must be rectified. Where work is not satisfactorily completed, a notice will be issued to the permit holder.

On completion of the landscaping works to the satisfaction of the Responsible Authority, a refund of 50% of the security deposit will be made to the payee. Upon the maintenance of the landscaping works for a period of two years after completion of such works to the satisfaction of the Responsible Authority, the balance of the security deposit will be refunded to the payee.

Compliance with Approved Landscape Plans
Landscape Plans endorsed under a planning permit must continue to be maintained in accordance with the plan and dead and diseased plants are to be replaced and weeds controlled. Council officers may undertake inspections to ensure that landscaping is maintained. Amendments to Landscape Plans require the approval of Council if proposed or if there are future changes to the land or permitted uses/development.

Useful References
The following publications will provide assistance in the areas of planning requirements for medium density housing, landscape design and plant selection.

Plants of the Merri Merri: A guide to the indigenous vegetation at the Merri Creek Valley and Melbourne’s Northern Suburbs (Merri Creek Coordinating Committee)

Flora of Melbourne, A Guide to the Indigenous Plants of the Greater Melbourne Area (Marilyn Bull)

Botanica: The illustrated A-Z of over 10,000 Garden Plants and how to cultivate them (Random House)

Developing Shade in Public Places, Anti-Cancer Council of Victoria

Urban Nature Strip Guidelines, City of Whittlesea

Contacts
Council’s Planning Department
Phone: 9217 2236

Information & Contacts

Design Assistance
Where the scale and complexity of a project requires professional design assistance, it is suggested that a suitably qualified landscape design professional be employed. Their involvement should start at the early stages of site analysis and development planning.

A list of landscape design professionals is available from the following organisations:

The Australian Institute of Landscape Architects (Victorian Chapter)
PO BOX 110
Montmorency Vic 3094
Phone: 03 9016 0111
Email: vic@aila.org.au
www.aila.org.au

Landscape Industries Association of Victoria
Suite 12, 497 Burke Road, Hawthorn East VIC 3123
Phone: 1300 365 428
www.landscapingvictoria.com.au